

# ***Cryptologic Systems Group***

---

## ***Space TT&C Crypto Mod Program Overview***

PM: Mr Ray Baker  
CPSG/ZJJ

DSN 969-3530

Ray.baker@lackland.af.mil

---

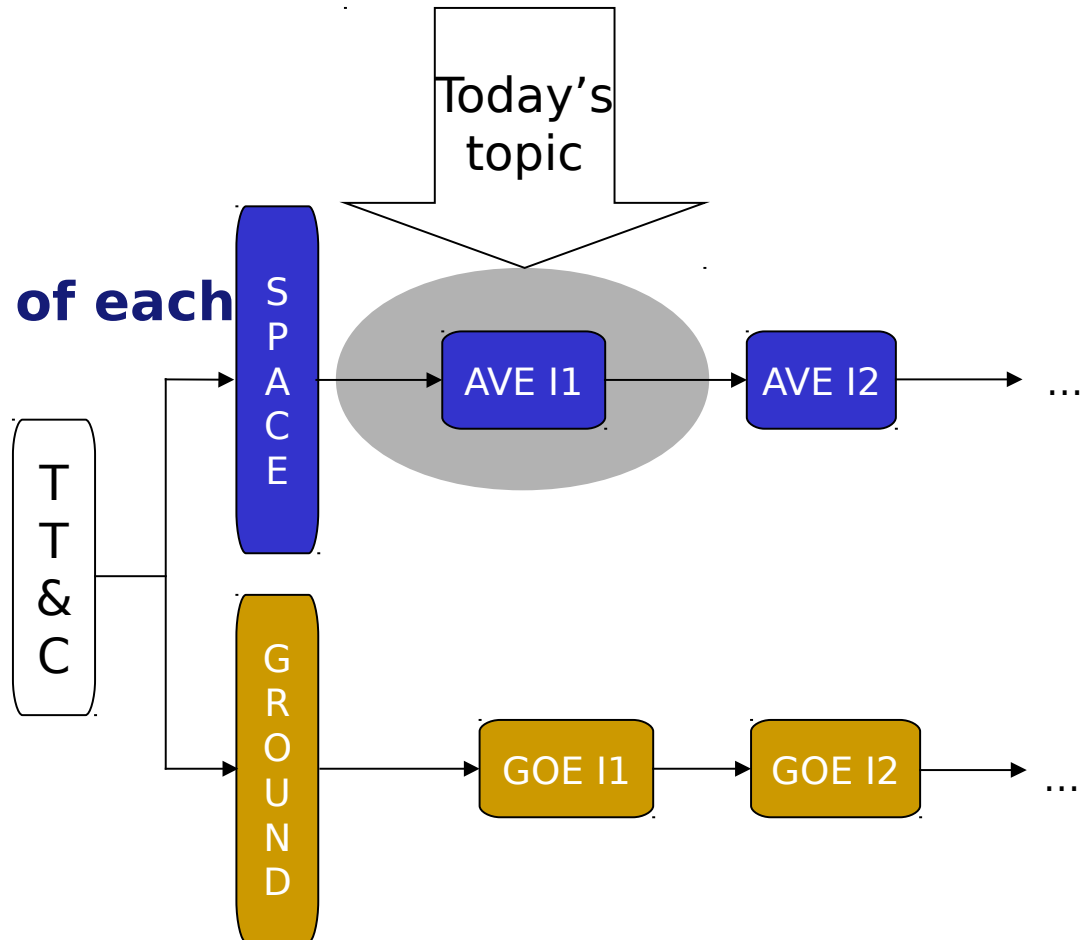
# ***Agenda***

---

- ◆ **Program Structure**
  - ◆ **Increment 1**
  - ◆ **Additional increments**
  - ◆ **Requirements**
  - ◆ **Decision Authorities**
  - ◆ **Schedule**
  - ◆ **Summary**
-

# Program Structure

- One program
- Two product lines
  - Space
  - Ground
- Multiple increments of each product line



# ***Increment 1 Drivers***

---

## **◆ AVE Increment 1 drivers**

### **- Timing**

- Forecast exhaustion of Pegasus/Cardholder ASIC inventory

### **- Requirements**

- New satellite programs (GPS III, Space Radar, etc)
- NSA policy 3-9

## **◆ GOE Increment 1 drivers**

### **- Timing**

- Legacy devices becoming unsustainable

### **- Requirements**

- Legacy satellites/algorithms
  - NSA policy 3-9
-

# ***Increment 1 Product Description***

---

## **◆ AVE Increment 1**

- **Next generation CM-compliant TT&C encrypter/decrypter**
- **Two configurations**
  - **Embeddable solution with Cardholder/Pegasus/AES**
  - **ECU based on embeddable solution, plus all crypto management functionality**

## **◆ GOE Increment 1**

- **Existing terrestrial devices adapted to TT&C mission**
  - **Three elements**
    - **ECUs**
    - **Space algorithm programming**
    - **Interface adapters to enable “plug and play” replacement of legacy devices**
-

# ***Subsequent Increments***

---

- ◆ **Content of subsequent increments is TBD by ongoing Concept Development (CD) studies**
  - ◆ **CD objectives**
    - **Satellite development contractors asked to define security overlay required to secure future satellite TT&C links**
    - **Help define spiral developments based on need and technology readiness**
  - ◆ **Two Contracts Awarded (14 Apr 05)**
    - **Northrop Grumman**
    - **Sparta**
  - ◆ **Period of Performance - 12 Months**
-

# ***Requirements***

---

- ◆ **Using Organization(s): AFCA, AFSPC, NRO**
  - ◆ **ICD: USAF Crypto Mod, 24 Jun 04**
  - ◆ **CDD: Modernization of Space TT&C Cryptography, 1 Oct 05 (tentative)**
  - ◆ **PMD 2011/PE 33140, Crypto Mod, 14 Jul 03**
  - ◆ **IOC 2007 (GOE Inc 1), FOC 2013 (AVE Inc 1)**
-

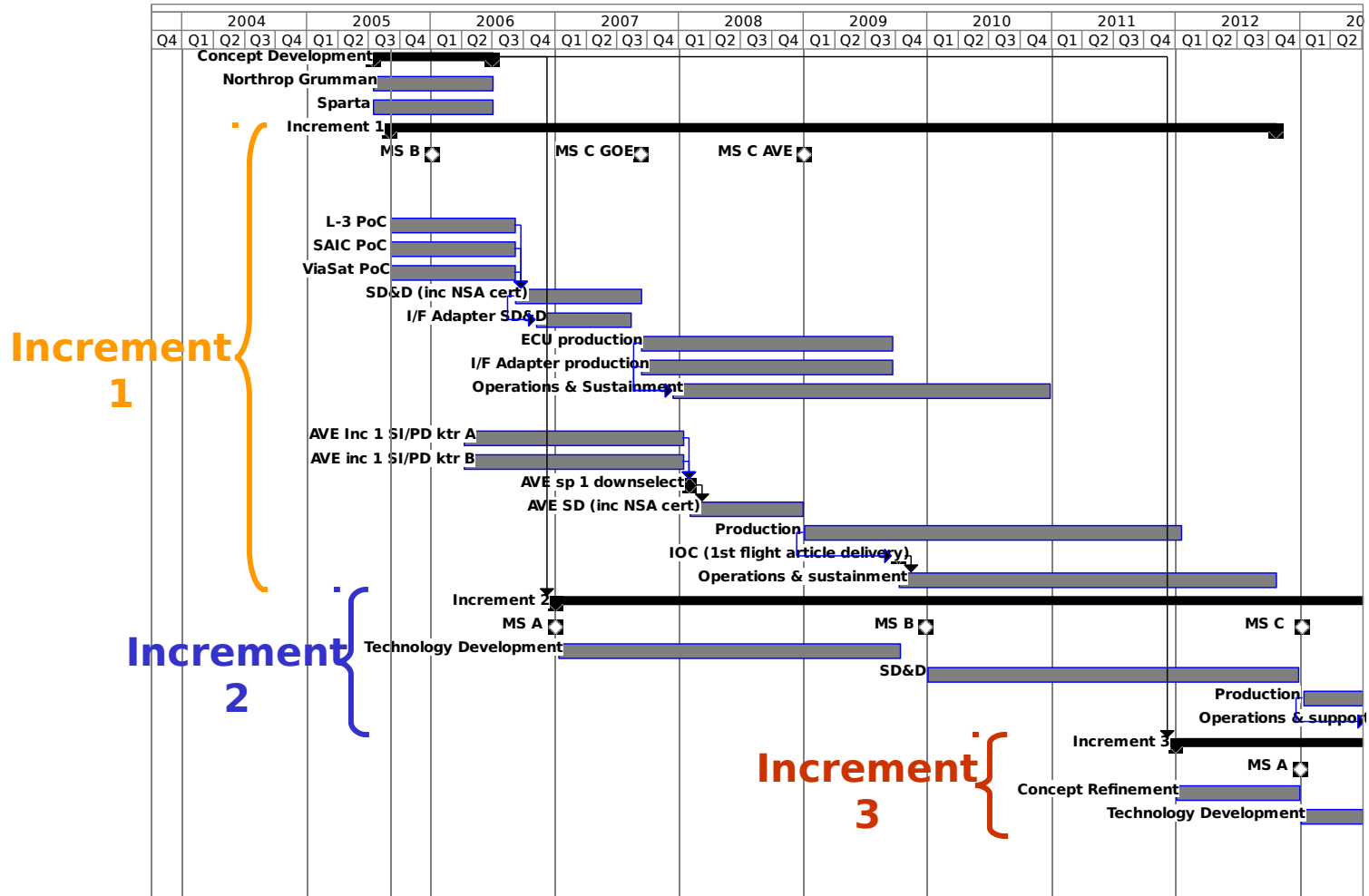
# ***Decision Authorities***

---

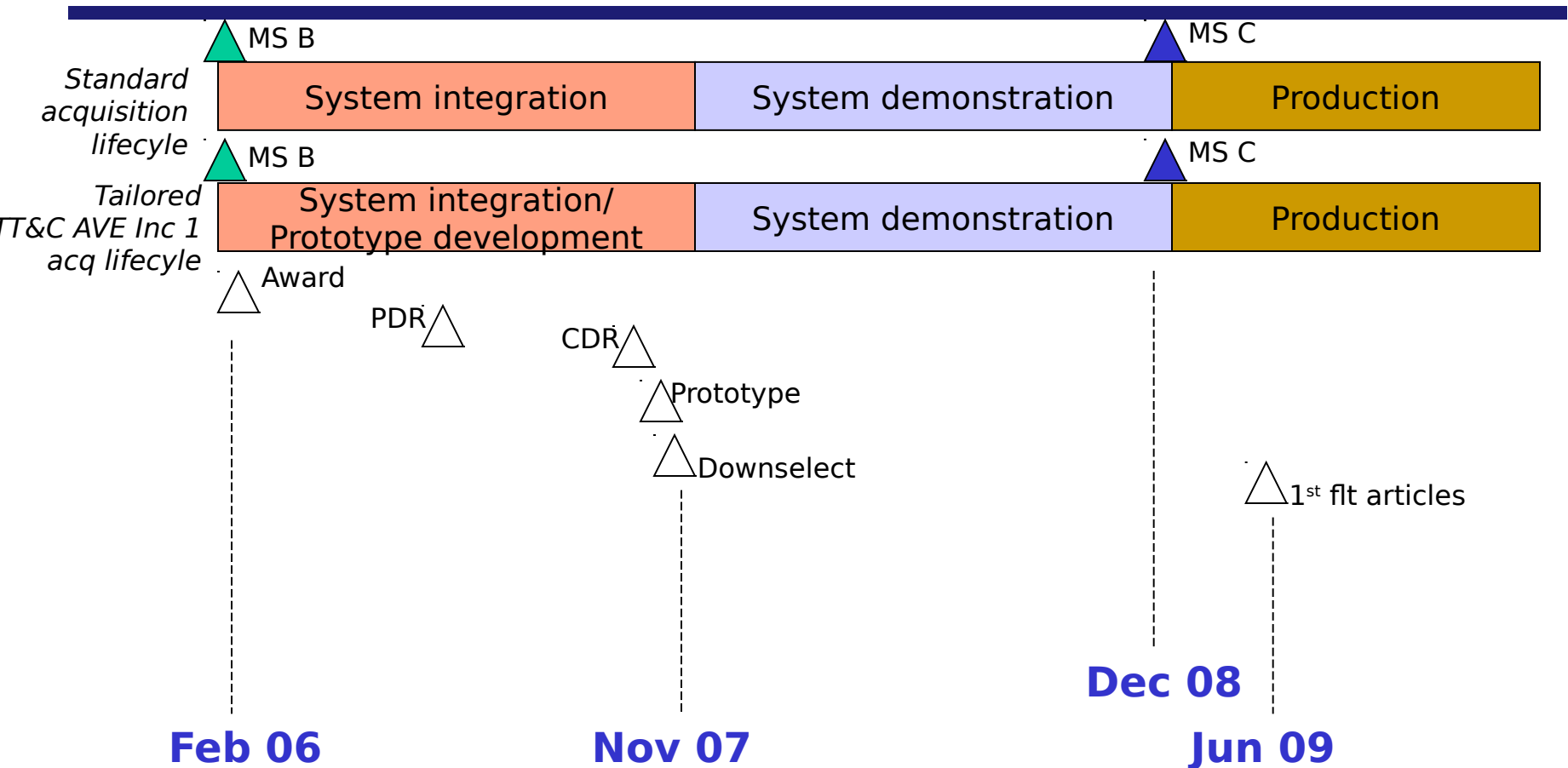
- ◆ **ACAT Level III**
  - ◆ **PEO Program -- PEO Command and Control  
& Combat Support (C2&CS)**
  - ◆ **MDA: PEO C2&CS (ESC/CC)**
  - ◆ **SSA: CPSG/CC**
  - ◆ **ASP approval: CPSG/CC (pending  
delegation from ESC/CC)**
-



# Program Schedule



# AVE I1 Schedule



# ***AVE I1 Pre-Award Schedule***

---

- ◆ **Draft RFP issued** **7/21**
  - ◆ **Pre-solicitation conference** **8/17-18**
  - ◆ **Acquisition Strategy Panel** **9/27**
  - ◆ **RFP release** **9/28**
  - ◆ **Proposals Due** **10/28**
  - ◆ **Milestone B approval** **Feb 06**
  - ◆ **Contract award** **28 Feb 06**
-

# ***Summary***

---

- ◆ **CPSG taking lead in TT&C**
  - ◆ **TT&C AVE Increment 1 underway**
    - **CDD in coordination**
    - **Pre-solicitation conference *TODAY***
    - **ASP 9/27; RFP release ASAP thereafter**
    - **MS B 12/5; contract award ASAP**
    - **Requirements & schedule are challenging,  
*but doable***
-